* * * * * * * * * * * * * STN Columbus * * * * * * * * * * * * * *
FILE 'HOME' ENTERED AT 17:48:26 ON 07 APR 2004
=> file biosis,caba,caplus,embase,japio,lifesci,medline,scisearch,uspatfull
=> s (pneumococcal surface adhesin a)
L1 185 (PNEUMOCOCCAL SURFACE ADHESIN A)
=> dup rem l1
PROCESSING COMPLETED FOR L1
L2 64 DUP REM L1 (121 DUPLICATES REMOVED)
=> s l2 and lipidated
L3 5 L2 AND LIPIDATED
=> d bib ab kwic 1-
YOU HAVE REQUESTED DATA FROM 5 ANSWERS - CONTINUE? Y/(N):y
L3 ANSWER 1 OF 5 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
AN 2003:202251 BIOSIS
DN PREV200300202251
TI Inhibition of pneumococcal adherence to human nasopharyngeal epithelial cells by anti-PsaA antibodies.
AU Romero-Steiner, Sandra [Reprint Author]; Pilishvili, Tamar; Sampson, Jacquelyn S.; Johnson, Scott E.; Stinson, Annie; Carlone, George M.; Ades, Edwin W.
CS Respiratory Diseases Immunology Section, Respiratory Diseases Branch, Division of Bacterial and Mycotic Diseases, Centers for Disease Control and Prevention, 1600 Clifton Rd., MS A-36, Atlanta, GA, 30333, USA SSteiner@cdc.gov
SO Clinical and Diagnostic Laboratory Immunology, (March 2003) Vol. 10, No. 2, pp. 246-251. print.
ISSN: 1071-412X (ISSN print).
DT Article
LA English
ED Entered STN: 23 Apr 2003
Last Updated on STN: 23 Apr 2003
AB The role of pneumococcal (Pnc) surface adhesin A (PsaA) in the adherence of Streptococcus pneumoniae (pneumococcus) to host cells is not well defined. We examined the effect of anti-PsaA antibodies in an inhibition of adherence assay using Detroit 562 nasopharyngeal human epithelial cells. Rabbit polyclonal (Pab) anti-recombinant PsaA (rPsaA) sera, a purified mouse monoclonal antibody (MAb) (MAb 6F62G8E12), and 22 healthy adult sera with known anti-PsaA IgG levels (obtained by enzyme-linked immunosorbent assay) were evaluated for their abilities to inhibit Pnc adherence to confluent monolayers (measured as percent reduction in CFU counts compared to those of uninhibited controls). Pnc adherence was dependent on capsular phenotype (no or low adherence for opaque strains). With an inoculum of 104 to 105 bacteria/well, the mean + standard deviation count in controls was 163 + 32 CFU/well for transparent strains. Low adherence was observed for a PsaA-minus mutant even at higher inoculum doses. Mean percent inhibitions of adherence with Pab and MAb were 54 and 50%, respectively. Adult sera showed inhibition in a

dose-response fashion with a range of 98 to 8%, depending on the serum anti-PsaA antibody concentration. Absorption of Pab with rPsaA restored Pnc adherence to control levels. Absorption of sera with a PsaA-minus mutant did not result in a significant decrease (P >0.05) of inhibition of adherence activity. Additionally, nearly 100% of Pnc adherence was inhibited by ***lipidated*** rPsaA at 2.5 mug/ml. Our data support the argument that PsaA is an adhesin that mediates Pnc adherence to human nasopharyngeal cells. This functional assay may be useful in evaluating antibodies elicited in response to PsaA vaccination.

AB. . . in a significant decrease (P >0.05) of inhibition of adherence activity. Additionally, nearly 100% of Pnc adherence was inhibited by ***lipidated*** rPsaA at 2.5 mug/ml. Our data support the argument that PsaA is an adhesin that mediates Pnc adherence to human. . .

IT . . .
lymphatics

IT Diseases
Streptococcus pneumoniae infection: bacterial disease, respiratory system disease
Streptococcal Infections (MeSH)

IT Chemicals & Biochemicals
IgG [immunoglobulin G]; anti- ***pneumococcal*** ***surface*** ***adhesin*** ***A*** antibodies; mouse monoclonal antibody; pneumococcal surface adhesin; rabbit polyclonal anti-recombinant ***pneumococcal*** ***surface*** ***adhesin*** ***A***

L3 ANSWER 2 OF 5 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN

AN 2002:303982 BIOSIS

DN PREV200200303982

TI Inhibition of pneumococcal carriage in mice by subcutaneous immunization with peptides from the common surface protein ***pneumococcal*** ***surface*** ***adhesin*** ***A*** .

AU Johnson, Scott E. [Reprint author]; Dykes, Janet K.; Jue, Danny L.; Sampson, Jaquelyn S.; Carlone, George M.; Ades, Edwin W.

CS Division of Bacterial and Mycotic Diseases, Centers for Disease Control and Prevention, Respiratory Diseases Branch, National Center for Infectious Diseases, Atlanta, GA, 30333, USA
sjohnson@cdc.gov

SO Journal of Infectious Diseases, (15 February, 2002) Vol. 185, No. 4, pp. 489-496. print.
CODEN: JIDIAQ. ISSN: 0022-1899.

DT Article

LA English

ED Entered STN: 22 May 2002
Last Updated on STN: 22 May 2002

AB ***Pneumococcal*** ***surface*** ***adhesin*** ***A*** (PsaA), a common protein expressed on all 90 pneumococcal serotypes, is a vaccine candidate. Three anti-PsaA monoclonal antibody phage

display-expressed monopeptides (15 mers), in various formulations as ***lipidated*** or nonlipidated multiantigenic peptides or as bi- or tripeptide constructs, were studied in a mouse nasopharyngeal carriage model to determine the inhibitory effect of induced antibodies on carriage of pneumococcal serotypes 2,4, and 6B. Antibodies to each of the various peptides tested reduced carriage of the 3 serotypes. Reduction in carriage by nonlipidated multiantigenic peptide antibodies was highly variable (39%-94%; mean, 59%; standard deviation (SD), 20.2%); however, more-consistent results were observed in mice immunized with ***lipidated*** (56%-98%; mean, 69%; SD, 13.6%) and combination or bipeptide (55%-91%; mean, 76%; SD, 13.1%) formulations. These peptides are immunogenic, and their induced antibodies reduce carriage in mice. PsaA peptides demonstrate potential for being important new vaccines against pneumococcal carriage, otitis media, and invasive pneumococcal disease.

TI Inhibition of pneumococcal carriage in mice by subcutaneous immunization with peptides from the common surface protein ***pneumococcal*** ***surface*** ***adhesin*** ***A*** .

AB ***Pneumococcal*** ***surface*** ***adhesin*** ***A*** (PsaA), a common protein expressed on all 90 pneumococcal serotypes, is a vaccine candidate. Three anti-PsaA monoclonal antibody phage display-expressed monopeptides (15 mers), in various formulations as ***lipidated*** or nonlipidated multiantigenic peptides or as bi- or tripeptide constructs, were studied in a mouse nasopharyngeal carriage model to determine. . . antibodies was highly variable (39%-94%; mean, 59%; standard deviation (SD), 20.2%); however, more-consistent results were observed in mice immunized with ***lipidated*** (56%-98%; mean, 69%; SD, 13.6%) and combination or bipeptide (55%-91%; mean, 76%; SD, 13.1%) formulations. These peptides are immunogenic, and. . .

IT . . .
Immune System (Chemical Coordination and Homeostasis); Infection; Pharmacology

IT Diseases
otitis media: ear disease
Otitis Media (MeSH)

IT Chemicals & Biochemicals
pneumococcal ***surface*** ***adhesin*** ***A*** : expression, protein, vaccine candidate

L3 ANSWER 3 OF 5 CAPLUS COPYRIGHT 2004 ACS on STN

AN 2002:51509 CAPLUS

DN 136:117369

TI Multiple antigenic peptides induce protective immune response against Streptococcus pneumoniae

IN Ades, Edwin W.; Johnson, Scott E.; Jue, Danny L.; Sampson, Jacquelyn S.; Carlone, George M.

PA The Government of the United States of America, as Represented by the Secretary, Department of Health and Human Services, USA

SO PCT Int. Appl., 86 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2002004497	A2	20020117	WO 2001-US21626	20010710
WO 2002004497	A3	20010710		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

AU 2001071935	A5	20020121	AU 2001-71935	20010710
EP 1301530	A2	20030416	EP 2001-950993	20010710

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR

JP 2004502782	T2	20040129	JP 2002-509360	20010710
PRAI US 2000-613092	A2	20000710		
WO 2001-US21626	W	20010710		

AB The authors disclose the cloning and immunogenicity of the pneumococcal surface A protein (PspA) of S. pneumoniae challenge. In addn., the authors disclose epitope mapping for anti-PspA monoclonal antibodies obtained by panning of a phage display library. In one example, immunization of xid mice with PspA provided protective immunity against subsequent challenge. A in a second example, immunization of Balb/C mice with ***lipidated*** peptides or multiple antigenic peptide constructs were shown to inhibit bacterial colonization.
AB The authors disclose the cloning and immunogenicity of the pneumococcal surface A protein (PspA) of S. pneumoniae challenge. In addn., the authors disclose epitope mapping for anti-PspA monoclonal antibodies obtained by panning of a phage display library. In one example, immunization of xid mice with PspA provided protective immunity against subsequent challenge. A in a second example, immunization of Balb/C mice with ***lipidated*** peptides or multiple antigenic peptide constructs were shown to inhibit bacterial colonization.
IT Adhesins
RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)
(PspA (***pneumococcal*** ***surface*** ***adhesin*** ***A***); cloning, epitope mapping, and immunogenicity of)
IT DNA sequences
Protein sequences

(for ***pneumococcal*** ***surface*** ***adhesin*** ***A*** protein of Streptococcus pneumoniae)

IT Epitopes
(mimotopes; of ***pneumococcal*** ***surface*** ***adhesin*** ***A*** protein of Streptococcus pneumoniae for vaccination)

IT Antibodies
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(monoclonal; to ***pneumococcal*** ***surface*** ***adhesin*** ***A*** protein of Streptococcus pneumoniae)

IT Phage display library
(of peptide mimotopes of ***pneumococcal*** ***surface*** ***adhesin*** ***A*** protein of Streptococcus pneumoniae)

IT Lipopeptides
Multiple antigen peptides
Peptides, biological studies
RL: BSU (Biological study, unclassified); PAC (Pharmacological activity); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(of ***pneumococcal*** ***surface*** ***adhesin*** ***A*** protein of Streptococcus pneumoniae for vaccination)

L3 ANSWER 4 OF 5 CAPLUS COPYRIGHT 2004 ACS on STN
AN 2000:273192 CAPLUS
DN 133:295042
TI Selection of an immunogenic and protective epitope of the PsaA protein of Streptococcus pneumoniae using a phage display library
AU Srivastava, N.; Zeiler, J. L.; Smithson, S. L.; Carlone, G. M.; Ades, E. W.; Sampson, J. S.; Johnson, S. E.; Kieber-Emmons, T.; Westerink, M. A. J.
CS Department of Medicine, Medical College of Ohio, Toledo, OH, 43614, USA
SO Hybridoma (2000), 19(1), 23-31
CODEN: HYBRDY; ISSN: 0272-457X
PB Mary Ann Liebert, Inc.
DT Journal
LA English
AB Streptococcus pneumoniae is an important pathogen that causes disease in young and elderly individuals. The currently available polysaccharide vaccines have limited efficacy in those age groups most susceptible to pneumococcal infections. This study focuses on mapping the epitopes of a surface protein of S. pneumoniae by biopanning a 15 mer phage display library using 5 different monoclonal antibodies (MAbs) against the Pneumoccal surface adhesin A (PsaA). PsaA is a component of the bacterial cell wall that is highly species specific and is involved in bacterial adherence and virulence. Biopanning of the phage display library reveals three distinct epitopes on the PsaA protein. The sequence homol. of these epitopes ranges from two to six amino acids when compared to the native PsaA protein type 2. Two of these epitopes have been evaluated for their immunogenicity in mice. The peptide selected by the MAbs 8G12, 6F6, and 1B7 is referred to as the consensus peptide and is immunogenic in mice.

Optimal anti-PsaA response is obsd. in mice immunized with 50 .mu.g of the consensus peptide complexed to proteosomes in 1:1 ratio. The anti-PsaA response is significantly lower than the response to the PsaA native protein. The peptide selected by monoclonal antibody 4E9 in its ***lipidated*** form is significantly protective in mice challenged with S. pneumoniae serotype 2 when compared to mice immunized with the native protein. These results show that the selected epitopes of PsaA protein are immunogenic and protective in mice. These epitopes need to be evaluated further as alternatives to currently available vaccines.

RE.CNT 64 THERE ARE 64 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

AB Streptococcus pneumoniae is an important pathogen that causes disease in young and elderly individuals. The currently available polysaccharide vaccines have limited efficacy in those age groups most susceptible to pneumococcal infections. This study focuses on mapping the epitopes of a surface protein of S. pneumoniae by biopanning a 15 mer phage display library using 5 different monoclonal antibodies (MAbs) against the Pneumoccal surface adhesin A (PsaA). PsaA is a component of the bacterial cell wall that is highly species specific and is involved in bacterial adherence and virulence. Biopanning of the phage display library reveals three distinct epitopes on the PsaA protein. The sequence homol. of these epitopes ranges from two to six amino acids when compared to the native PsaA protein type 2. Two of these epitopes have been evaluated for their immunogenicity in mice. The peptide selected by the MAbs 8G12, 6F6, and 1B7 is referred to as the consensus peptide and is immunogenic in mice. Optimal anti-PsaA response is obsd. in mice immunized with 50 .mu.g of the consensus peptide complexed to proteosomes in 1:1 ratio. The anti-PsaA response is significantly lower than the response to the PsaA native protein. The peptide selected by monoclonal antibody 4E9 in its ***lipidated*** form is significantly protective in mice challenged with S. pneumoniae serotype 2 when compared to mice immunized with the native protein. These results show that the selected epitopes of PsaA protein are immunogenic and protective in mice. These epitopes need to be evaluated further as alternatives to currently available vaccines.

IT Adhesins
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(PsaA (***pneumococcal*** ***surface*** ***adhesin*** ***A***); PsaA protein of Streptococcus pneumoniae in vaccine against streptococcal infections)

L3 ANSWER 5 OF 5 USPATFULL on STN
AN 2003:51224 USPATFULL
TI Peptide extended glycosylated polypeptides
IN Okkels, Jens Sigurd, Vedbaek, DENMARK
Jensen, Anne Dam, Copenhagen, DENMARK
van den Hazel, Bart, Copenhagen, DENMARK

PI US 2003036181 A1 20030220
AI US 2001-896896 A1 20010629 (9)
PRAI DK 2000-1027 20000630
DK 2000-1092 20000714
WO 2000-DK743 20001229
WO 2001-DK90 20010209
US 2000-217497P 20000711 (60)
US 2000-225558P 20000816 (60)
DT Utility
FS APPLICATION
LREP MAXYGEN, INC., 515 GALVESTON DRIVE, RED WOOD CITY, CA, 94063
CLMN Number of Claims: 57
ECL Exemplary Claim: 1
DRWN 2 Drawing Page(s)
LN.CNT 4732
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Glycosylated polypeptides comprising the primary structure NH.sub.2--X--Pp--COOH, wherein X is a peptide addition comprising or contributing to a glycosylation site, and Pp is a polypeptide of interest or comprising the primary structure NH.sub.2-P.sub.x--X--P.sub.y-COOH, wherein P.sub.x is an N-terminal part of a polypeptide Pp of interest, P.sub.y is a C-terminal part of said polypeptide Pp, and X is a peptide addition comprising or contributing to a glycosylation site are provided. The glycosylated polypeptides possess improved properties as compared to the polypeptide of interest.
DETD . . . sequence comprising more than 5 amino acid residues, which may or may not be post-translationally modified (e.g., acetylated, carboxylated, phosphorylated, ***lipidated*** , or acylated). The interchangeably used terms "native" and "wild-type" are used about a polypeptide which has an amino acid sequence. . .
DETD . . . of Streptococcus mutans (Murakami et al. (1997) Infect. Immun. 65: 794-797); pneumolysin, Pneumococcal neuraminidases, autolysin, hyaluronidase, and the 37 kDa ***pneumococcal*** ***surface*** ***adhesin*** ***A*** (Paton et al. (1997) Microb. Drug Resist. 3: 1-10); 29-32, 41-45, 63-71.times.10(3) MW antigens of Salmonella typhi (Perez et al.. . .

=> s PsaA and lipidated
L4 36 PSAA AND LIPIDATED

=> dup rem l4
PROCESSING COMPLETED FOR L4
L5 17 DUP REM L4 (19 DUPLICATES REMOVED)

=> d bib ab kwic 1-
YOU HAVE REQUESTED DATA FROM 17 ANSWERS - CONTINUE? Y/(N):y

L5 ANSWER 1 OF 17 USPATFULL on STN
AN 2004:64631 USPATFULL
TI Vaccines
IN Dalton, Colin Cave, Rixensart, BELGIUM
Easeman, Richard Lewis, Brentford, UNITED KINGDOM
Garcon, Nathalie, Rixensart, BELGIUM
PI US 2004049150 A1 20040311
AI US 2003-333448 A1 20030812 (10)
WO 2001-EP8339 20010718
PRAI GB 2000-17999 20000721
DT Utility
FS APPLICATION
LREP SMITHKLINE BEECHAM CORPORATION, CORPORATE INTELLECTUAL PROPERTY-US,
UW2220, P. O. BOX 1539, KING OF PRUSSIA, PA, 19406-0939
CLMN Number of Claims: 16
ECL Exemplary Claim: 1
DRWN 5 Drawing Page(s)
LN.CNT 1060
AB The present invention relates to efficient devices for administration of pharmaceutical agents into the skin of the human body. In particular the present invention provides devices for vaccination into the skin. The present invention provides a pharmaceutical agent delivery device having skin-piercing portion comprising a solid reservoir medium containing the pharmaceutical agent, wherein the reservoir medium is coated onto the skin piercing portion. Alternatively, the skin piercing portion may consist of the solid pharmaceutical agent reservoir medium. The pharmaceutical delivery devices are proportioned such that agent is delivered into defined layers of the skin, and preferred delivery devices comprise skin-piercing portions that deliver the pharmaceutical agent into the epithelium or the dermis. Preferred reservoir media comprise sugars, and in particular stabilising sugars that forms a glass such as lactose, raffinose, trehalose or sucrose. Furthermore, vaccine delivery devices for administration of vaccines into the skin are provided, methods of their manufacture, and their use in medicine.
SUMM [0046] Preferred bacterial vaccines comprise antigens derived from Streptococcus spp, including S. pneumoniae (for example capsular polysaccharides and conjugates thereof, ***PsaA*** , PspA, streptolysin, choline-binding proteins) and the protein antigen Pneumolysin (Biochem Biophys Acta, 1989, 67, 1007; Rubins et al., Microbial Pathogenesis,. . .
SUMM . . . and chimeric fusion proteins. In particular the antigen is OspA. The OspA may be a full mature protein in a ***lipidated*** form virtue of the host cell (E. Coli) termed (Lipo-OspA) or a non- ***lipidated*** derivative. Such non- ***lipidated*** derivatives include the non- ***lipidated*** NS1-OspA fusion protein which has the first 81 N-terminal amino acids of the non-structural protein (NS1) of the influenza virus, and the complete OspA protein, and another,

MDP-OspA is a non- ***lipidated*** form of OspA carrying 3 additional N-terminal amino acids.

L5 ANSWER 2 OF 17 USPATFULL on STN
AN 2004:63351 USPATFULL
TI Adjuvant composition comprising an immunostimulatory oligonucleotide and a tocol
IN Garcon, Nathalie, Rixensart, BELGIUM
Gerard, Catherine Marie Ghislaine, Rixensart, BELGIUM
Stephenne, Jean, Rixensart, BELGIUM
PI US 2004047869 A1 20040311
AI US 2003-399356 A1 20030930 (10)
WO 2001-EP11985 20011016
PRAI GB 2000-255778 20001018
DT Utility
FS APPLICATION
LREP SMITHKLINE BEECHAM CORPORATION, CORPORATE INTELLECTUAL PROPERTY-US,
UW2220, P. O. BOX 1539, KING OF PRUSSIA, PA, 19406-0939
CLMN Number of Claims: 18
ECL Exemplary Claim: 1
DRWN 6 Drawing Page(s)
LN.CNT 1230
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention relates to novel adjuvant compositions for use in vaccines. In particular, the adjuvant compositions of the present invention comprise a combination of an immunostimulatory oligonucleotide and a tocol. Also provided by the present invention are vaccines comprising the adjuvant compositions of the present invention and at least one antigen. Further provided are methods of manufacture of the adjuvant compositions and vaccines of the present invention and their us as medicaments. Additionally, the present invention provides methods of treating an individual susceptible to or suffering from a disease by the parenteral or mucosal administration of the vaccines of the present invention.
SUMM [0061] Preferred bacterial vaccines comprise antigens derived from Streptococcus spp, including S. pneumoniae (for example capsular polysaccharides and conjugates thereof, ***PsaA*** , PspA, streptolysin, choline-binding proteins) and the protein antigen Pneumolysin (Biochem Biophys Acta, 1989, 67, 1007; Rubins et al., Microbial Pathogenesis,. . .
SUMM . . . Immunological fusion partner. In particular, the Mage protein may be fused to Protein D from Heamophilus influenzae B or a ***lipidated*** derivative thereof. In particular, the fusion partner may comprise the first 1/3 of Protein D. Such constructs are disclosed in. . .
SUMM . . . and chimeric fusion proteins. In particular the antigen is OspA. The OspA may be a full mature protein in a ***lipidated***

form virtue of the host cell (E.Coli) termed (Lipo-OspA) or a non- ***lipidated*** derivative. Such non- ***lipidated*** derivatives include the non- ***lipidated*** NS1-OspA fusion protein which has the first 81 N-terminal amino acids of the non-structural protein (NS1) of the influenza virus, and the complete OspA protein, and another, MDP-OspA is a non- ***lipidated*** form of OspA carrying 3 additional N-terminal amino acids.

L5 ANSWER 3 OF 17 USPATFULL on STN
AN 2004:18393 USPATFULL
TI Oral solid dose vaccine
IN Vande-Velde, Vincent, Rixensart, BELGIUM
PI US 2004013695 A1 20040122
AI US 2003-344798 A1 20030804 (10)
WO 2001-IB1711 20010814
PRAI GB 2000-2008991 20000815
DT Utility
FS APPLICATION
LREP SMITHKLINE BEECHAM CORPORATION, CORPORATE INTELLECTUAL PROPERTY-US,
UW2220, P. O. BOX 1539, KING OF PRUSSIA, PA, 19406-0939
CLMN Number of Claims: 24
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 1045
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention relates to novel vaccine formulations suitable for oral administration. The vaccine formulations are in a solid form comprising antigen and suitable excipients, which after insertion into the mouth, rapidly dissolve in saliva, thereby releasing the vaccine into the mouth. Specifically, the solid form may consist of a cake of vaccine which is formed from a liquid solution or suspension by sublimation, preferably sublimation by lyophilisation. Preferred vaccines are those containing antigens which are or are derived from pathogens that normally infect or invade the host through a mucosal membrane, or those vaccines that further comprise an antacid. Particularly preferred vaccines are combination vaccines that comprise more than one antigen, and more preferably when the antigens are from more than one pathogen.
SUMM [0014] Preferred bacterial vaccines comprise antigens derived from Streptococcus spp, including S. pneumoniae (for example capsular polysaccharides and conjugates thereof, ***PsaA*** , PspA, streptolysin, choline-binding proteins) and the protein antigen Pneumolysin (Biochem Biophys Acta, 1989, 67, 1007; Rubins et al., Microbial Pathogenesis,. . .
SUMM . . . and chimeric fusion proteins. In particular the antigen is OspA. The OspA may be a full mature protein in a ***lipidated*** form virtue of the host cell (E. coli) termed (Lipo-OspA) or a non-

lipidated derivative. Such non- ***lipidated*** derivatives include the non- ***lipidated*** NS1-OspA fusion protein which has the first 81 N-terminal amino acids of the non-structural protein (NS1) of the influenza virus, and the complete OspA protein, and another, MDP-OspA is a non- ***lipidated*** form of OspA carrying 3 additional N-terminal amino acids.

L5 ANSWER 4 OF 17 USPATFULL on STN
AN 2003:231636 USPATFULL
TI Vaccines
IN Friede, Martin, Farnham, UNITED KINGDOM
Garcon, Nathalie, Wavre, BELGIUM
Gerard, Catherine Marie Ghislaine, Rhode Saint Genese, BELGIUM
Hermand, Philippe, Court-Saint-Etienne, BELGIUM
PA SmithKline Beecham Biologicals s.a. (non-U.S. corporation)
PI US 2003161834 A1 20030828
AI US 2003-379164 A1 20030303 (10)
RLI Division of Ser. No. US 2000-690921, filed on 18 Oct 2000, GRANTED, Pat. No. US 6544518 Continuation-in-part of Ser. No. WO 2000-EP2920, filed on 4 Apr 2000, UNKNOWN Continuation-in-part of Ser. No. US 1999-301829, filed on 29 Apr 1999, GRANTED, Pat. No. US 6558670
PRAI GB 1999-8885 19990419
DT Utility
FS APPLICATION
LREP GLAXOSMITHKLINE, Corporate Intellectual Property- UW2220, P.O. Box 1539,
King of Prussia, PA, 19406-0939
CLMN Number of Claims: 29
ECL Exemplary Claim: 1
DRWN 12 Drawing Page(s)
LN.CNT 1737
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention relates to adjuvant compositions which are suitable to be used in vaccines. In particular, the adjuvant compositions of the present invention comprises a saponin and an immunostimulatory oligonucleotide, optionally with a carrier. Also provided by the present invention are vaccines comprising the adjuvants of the present invention and an antigen. Further provided are methods of manufacture of the adjuvants and vaccines of the present invention and their use as medicaments. Methods of treating an individual susceptible to or suffering from a disease by the administration of the vaccines of the present invention are also provided.
SUMM [0063] Preferred bacterial vaccines comprise antigens derived from Streptococcus spp, including S. pneumoniae (for example capsular polysaccharides and conjugates thereof, ***PsaA*** , PspA, streptolysin. choline-binding proteins) and the protein antigen Pneumolysin (Biochem Biophys Acta, 1989. 67, 1007; Rubins et al., Microbial Pathogenesis,. . .

SUMM . . . first 1/3 of the protein, in particular approximately the first N-terminal 100-110 amino acids. Preferably the protein D derivative is ***lipidated*** . Preferably the first 109 residues of the Lipoprotein D fusion partner is included on the N-terminus to provide the vaccine. . .

SUMM . . . and chimeric fusion proteins. In particular the antigen is OspA. The OspA may be a full mature protein in a ***lipidated*** form virtue of the host cell (E. Coli) termed (Lipo-OspA) or a non- ***lipidated*** derivative. Such non- ***lipidated*** derivatives include the non- ***lipidated*** NS1-OspA fusion protein which has the first 81 N-terminal amino acids of the non-structural protein (NS1) of the influenza virus, and the complete OspA protein, and another, MDP-OspA is a non- ***lipidated*** form of OspA carrying 3 additional N-terminal amino acids.

L5 ANSWER 5 OF 17 USPATFULL on STN
AN 2003:213285 USPATFULL
TI Vaccine against streptococcus pneumoniae capsular polysaccharides
IN Capiau, Carine, Rixensart, BELGIUM
Deschamps, Marguerite, Rixensart, BELGIUM
Desmons, Pierre Michel, Rixensart, BELGIUM
Laferriere, Craig Antonyjoseph, Rixensart, BELGIUM
Poolman, Jan, Rixensart, BELGIUM
Prieels, Jean-Paul, Rixensart, BELGIUM
PA SmithKline Beecham Biologicals S.A. (non-U.S. corporation)
PI US 2003147922 A1 20030807
AI US 2002-228666 A1 20020826 (10)
RLI Continuation of Ser. No. US 2001-936933, filed on 19 Dec 2001, ABANDONED
A 371 of International Ser. No. WO 2000-EP2465, filed on 17 Mar 2000, UNKNOWN
PRAI GB 1999-16677 19990715
GB 1999-6437 19990319
GB 1999-9077 19990420
GB 1999-9466 19990423
DT Utility
FS APPLICATION
LREP GLAXOSMITHKLINE, Corporate Intellectual Property - UW2220, P.O. Box 1539, King of Prussia, PA, 19406-0939
CLMN Number of Claims: 19
ECL Exemplary Claim: 1
DRWN 1 Drawing Page(s)
LN.CNT 2547
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention relates to the field of bacterial polysaccharide antigen vaccines. In particular, the present invention relates to specific advantageous pnumococcal polysaccharide conjugates adjuvanted with 3D-MPL and substantially devoid aluminium-based adjuvant.

SUMM . . . transmembrane deletion variants thereof (U.S. Pat. No. 5,804,193--Briles et al.); PspC and transmembrane deletion variants thereof (WO 97/09994--Briles et al); ***PsaA*** and transmembrane deletion variants thereof (Berry & Paton, Infect Immun December 1996;64(12):5255-62 "Sequence heterogeneity of ***PsaA*** , a 37-kilodalton putative adhesin essential for virulence of Streptococcus pneumoniae"); pneumococcal choline binding proteins and transmembrane deletion variants thereof; CbpA. . .

SUMM [0064] The proteins used in the present invention are preferably selected from the group pneumolysin, ***PsaA*** , PspA, PspC, CbpA or a combination of two or more such proteins. The present invention also encompasses immunologically functional equivalents. . .

SUMM . . . eleven serotypes, and at least one, but preferably two, Streptococcus pneumoniae proteins. Preferably one of the proteins is Pneumolysin or ***PsaA*** or PspA or CbpA (most preferably detoxified pneumolysin). A preferred combination contains at least pneumolysin or a derivative thereof and. . .

DETD . . . the N-terminal cysteine to which lipid chains are normally attached. The protein is therefore neither excreted into the periplasm nor ***lipidated*** and remains in the cytoplasm in a soluble form.

L5 ANSWER 6 OF 17 USPATFULL on STN
AN 2003:140134 USPATFULL
TI Oil in water emulsions containing saponins
IN Garcon, Nathalie, Wavre, BELGIUM
Momin, Patricia Marie Christine Aline Francoise, Brussells, BELGIUM
PA SmithKline Beecham Biologicals S.A. (non-U.S. corporation)
PI US 2003095974 A1 20030522
AI US 2002-139815 A1 20020506 (10)
RLI Continuation of Ser. No. US 2000-486997, filed on 31 Jul 2000, ABANDONED
A 371 of International Ser. No. WO 1998-EP5715, filed on 2 Sep 1998, UNKNOWN
PRAI GB 1997-18902 19970905
GB 1997-20982 19971002
DT Utility
FS APPLICATION
LREP GLAXOSMITHKLINE, Corporate Intellectual Property - UW2220, P.O. Box 1539, King of Prussia, PA, 19406-0939
CLMN Number of Claims: 29
ECL Exemplary Claim: 1
DRWN 19 Drawing Page(s)
LN.CNT 1381
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention relates to an oil in water emulsion vaccine composition. In particular, the present invention relates to a vaccine adjuvant formulation based on oil in water emulsion comprising a metabolisable oil and a saponin, wherein the oil and a saponin are

present in a ratio of between 1:1 and 200:1. The invention further relates to methods for preparing the emulsion and its use in medicine.

SUMM . . . thereof, transferrin-binding proteins, lactoferrin binding proteins, PilC, adhesins); Streptococcus spp, including S. pneumoniae (for example capsular polysaccharides and conjugates thereof, ***PsaA*** , PspA, streptolysin, choline-binding proteins), S. pyogenes (for example M proteins or fragments thereof, C5A protease, lipoteichoic acids), S. agalactiae, S.. . .

SUMM . . . and chimeric fusion proteins. In particular the antigen is OspA. The OspA may be a full mature protein in a ***lipidated*** form virtue of the host cell (E. Coli) termed (Lipo-OspA) or a non- ***lipidated*** derivative. Such non- ***lipidated*** derivatives include the non- ***lipidated*** NS1-OspA fusion protein which has the first 81 N-terminal amino acids of the non-structural protein (NS 1) of the influenza virus, and the complete OspA protein, and another, MDP-OspA is a non- ***lipidated*** form of OspA carrying 3 additional N-terminal amino acids.

L5 ANSWER 7 OF 17 USPATFULL on STN
AN 2003:51224 USPATFULL
TI Peptide extended glycosylated polypeptides
IN Okkels, Jens Sigurd, Vedbaek, DENMARK
Jensen, Anne Dam, Copenhagen, DENMARK
van den Hazel, Bart, Copenhagen, DENMARK
PI US 2003036181 A1 20030220
AI US 2001-896896 A1 20010629 (9)
PRAI DK 2000-1027 20000630
DK 2000-1092 20000714
WO 2000-DK743 20001229
WO 2001-DK90 20010209
US 2000-217497P 20000711 (60)
US 2000-225558P 20000816 (60)
DT Utility
FS APPLICATION
LREP MAXYGEN, INC., 515 GALVESTON DRIVE, RED WOOD CITY, CA, 94063
CLMN Number of Claims: 57
ECL Exemplary Claim: 1
DRWN 2 Drawing Page(s)
LN.CNT 4732
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Glycosylated polypeptides comprising the primary structure NH.sub.2--X--Pp--COOH, wherein X is a peptide addition comprising or contributing to a glycosylation site, and Pp is a polypeptide of interest or comprising the primary structure NH.sub.2-P.sub.x--X--P.sub.y-COOH, wherein P.sub.x is an N-terminal part of a polypeptide Pp of interest, P.sub.y is a C-terminal part of said polypeptide Pp, and X is a peptide addition comprising or contributing to a glycosylation site are provided. The glycosylated polypeptides possess improved properties

as compared to the polypeptide of interest.

DETD . . . sequence comprising more than 5 amino acid residues, which may or may not be post-translationally modified (e.g., acetylated, carboxylated, phosphorylated, ***lipidated*** , or acylated). The interchangeably used terms "native" and "wild-type" are used about a polypeptide which has an amino acid sequence. . .

DETD . . . protein, CD, extracted from Moraxella (Branhamella) catarrhalis (Yang et al. (1997) FEMS Immunol. Med. Microbiol. 17: 187-199); pH 6 antigen (***PsaA*** protein) of Yersinia pestis (Zav'yalov et al. (1996) FEMS Immunol. Med. Microbiol. 14: 53-57); a major surface glycoprotein, gp63, of. . .

L5 ANSWER 8 OF 17 USPATFULL on STN

AN 2003:123086 USPATFULL

TI Vaccine adjuvants

IN Friede, Martin, Court St Etienne, BELGIUM
Hermand, Philippe, Court St Etienne, BELGIUM

PA SmithKline Beechman Biologicals s.a., Rixensart, BELGIUM (non-U.S. corporation)

PI US 6558670 B1 20030506

AI US 1999-301829 19990429 (9)

PRAI BE 1999-8885 19990419

DT Utility

FS GRANTED

EXNAM Primary Examiner: Scheiner, Laurie

LREP Sutton, Jeffrey A., Venetianer, Stephen, Kinzig, Charles M.

CLMN Number of Claims: 5

ECL Exemplary Claim: 1

DRWN 2 Drawing Figure(s); 1 Drawing Page(s)

LN.CNT 721

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to adjuvant compositions which are suitable to be used in vaccines. In particular, the adjuvant compositions of the present invention comprises a saponin and an immunostimulatory oligonucleotide, preferably the saponins used in said adjuvant combinations are haemolytic. Also provided by the present invention are vaccines comprising the adjuvants of the present invention and an antigen. Further provided are methods of manufacture of the adjuvants and vaccines of the present invention and their use as medicaments.

DETD Preferred bacterial vaccines comprise antigens derived from Streptococcus spp, including S. pneumoniae (for example capsular polysaccharides and conjugates thereof, ***PsaA*** , PspA, streptolysin, choline-binding proteins)and the protein antigen Pneumolysin (Biochem Biophys Acta, 1989, 67, 1007; Rubins et al., Microbial Pathogenesis, 25,. . .

DETD . . . and chimeric fusion proteins. In particular the antigen is OspA. The OspA may be a full mature protein in a ***lipidated***

form virtue of the host cell (E.Coli) termed (Lipo-OspA) or a non- ***lipidated*** derivative. Such non- ***lipidated*** derivatives include the non- ***lipidated*** NS1-OspA fusion protein which has the first 81 N-terminal amino acids of the non-structural protein (NS 1) of the influenza virus, and the complete OspA protein, and another, MDP-OspA is a non- ***lipidated*** form of OspA carrying 3 additional N-terminal amino acids.

L5 ANSWER 9 OF 17 USPATFULL on STN
AN 2003:95812 USPATFULL
TI Vaccines
IN Friede, Martin, Farnham, UNITED KINGDOM
Garcon, Nathalie, Wavre, BELGIUM
Gerard, Catherine Marie Ghislaine, Rhode Saint Genese, BELGIUM
Hermand, Philippe, Court-Saint-Etienne, BELGIUM
PA SmithKline Beecham Biologicals s.a., Rixensart, BELGIUM (non-U.S. corporation)
PI US 6544518 B1 20030408
AI US 2000-690921 20001018 (9)
RLI Continuation-in-part of Ser. No. WO 2000-EP2920, filed on 4 Apr 2000
Continuation-in-part of Ser. No. US 1999-301829, filed on 29 Apr 1999
PRAI GB 1999-8885 19990419
DT Utility
FS GRANTED
EXNAM Primary Examiner: Scheiner, Laurie
LREP Sutton, Jeffery A., Venetianer, Stephen, Kinzig, Charles M.
CLMN Number of Claims: 15
ECL Exemplary Claim: 1
DRWN 15 Drawing Figure(s); 12 Drawing Page(s)
LN.CNT 1721
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention relates to adjuvant compositions which are suitable to be used in vaccines. In particular, the adjuvant compositions of the present invention comprises a saponin and an immunostimulatory oligonucleotide, optionally with a carrier. Also provided by the present invention are vaccines comprising the adjuvants of the present invention and an antigen. Further provided are methods of manufacture of the adjuvants and vaccines of the present invention and their use as medicaments. Methods of treating an individual susceptible to or suffering from a disease by the administration of the vaccines of the present invention are also provided.
SUMM Preferred bacterial vaccines comprise antigens derived from Streptococcus spp, including S. pneumoniae (for example capsular polysaccharides and conjugates thereof, ***PsaA*** , PspA, streptolysin, choline-binding proteins) and the protein antigen Pneumolysin (Biochem Biophys Acta, 1989, 67, 1007; Rubins et al., Microbial Pathogenesis,. . .
SUMM . . . first 1/3 of the protein, in particular approximately the first

N-terminal 100-110 amino acids. Preferably the protein D derivative is ***lipidated*** . Preferably the first 109 residues of the Lipoprotein D fusion partner is included on the N-terminals to provide the vaccine. . .

SUMM . . . and chimeric fusion proteins. In particular the antigen is OspA. The OspA may be a full mature protein in a ***lipidated*** form virtue of the host cell (E.Coli) termed (Lipo-OspA) or a non- ***lipidated*** derivative. Such non- ***lipidated*** derivatives include the non- ***lipidated*** NS1-OspA fusion protein which has the first 81 N-terminal amino acids of the non-structural protein (NS1) of the influenza virus, and the complete OspA protein, and another, MDP-OspA is a non- ***lipidated*** form of OspA carrying 3 additional N-terminal amino acids.

L5 ANSWER 10 OF 17 USPATFULL on STN
AN 2003:13075 USPATFULL
TI Vaccine comprising an iscom consisting of sterol and saponin which is free of additional detergent
IN Friede, Martin, Farnham, UNITED KINGDOM
Garcon, Nathalie, Wavre, BELGIUM
PA SmithKline Beecham Biologicals, S.A., Rixensart, BELGIUM (non-U.S. corporation)
PI US 6506386 B1 20030114
WO 2000007621 20000217
AI US 2001-744800 20010604 (9)
WO 1999-EP5587 19990803
PRAI GB 1998-17052 19980805
DT Utility
FS GRANTED
EXNAM Primary Examiner: Scheiner, Laurie
LREP Kinzig, Charles M., Gimmi, Edward R.
CLMN Number of Claims: 15
ECL Exemplary Claim: 1
DRWN 2 Drawing Figure(s); 1 Drawing Page(s)
LN.CNT 592
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention provides an improved adjuvant formulation and a process for producing said adjuvant. The adjuvant comprises an ISCOM structure comprising a saponin, said ISCOM structure being devoid of additional detergent.

SUMM . . . thereof, transferrin-binding proteins, lactoferrin binding proteins, PilC, adhesins); Streptococcus spp, including S. pneumoniae (for example capsular polysaccharides and conjugates thereof, ***PsaA*** , PspA, streptolysin, choline-binding proteins), S. pyogenes (for example M proteins or fragments thereof, C5A protease, lipoteichoic acids), S. agalactiae, S.. . .

SUMM . . . and chimeric fusion proteins. In particular the antigen is OspA. The OspA may be a full mature protein in a ***lipidated***

form virtue of the host cell (E.Coli) termed (Lipo-OspA) or a non- ***lipidated*** derivative. Such non- ***lipidated*** derivatives include the non- ***lipidated*** NS1-OspA fusion protein which has the first 81 N-terminal amino acids of the non-structural protein (NS1) of the influenza virus, and the complete OspA protein, and another, MDP-OspA is a non- ***lipidated*** form of OspA carrying 3 additional N-terminal amino acids.

L5 ANSWER 11 OF 17 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
DUPLICATE 1
AN 2003:202251 BIOSIS
DN PREV200300202251
TI Inhibition of pneumococcal adherence to human nasopharyngeal epithelial cells by anti- ***PsaA*** antibodies.
AU Romero-Steiner, Sandra [Reprint Author]; Pilishvili, Tamar; Sampson, Jacquelyn S.; Johnson, Scott E.; Stinson, Annie; Carlone, George M.; Ades, Edwin W.
CS Respiratory Diseases Immunology Section, Respiratory Diseases Branch, Division of Bacterial and Mycotic Diseases, Centers for Disease Control and Prevention, 1600 Clifton Rd., MS A-36, Atlanta, GA, 30333, USA
SSteiner@cdc.gov
SO Clinical and Diagnostic Laboratory Immunology, (March 2003) Vol. 10, No. 2, pp. 246-251. print.
ISSN: 1071-412X (ISSN print).
DT Article
LA English
ED Entered STN: 23 Apr 2003
Last Updated on STN: 23 Apr 2003
AB The role of pneumococcal (Pnc) surface adhesin A (***PsaA***) in the adherence of Streptococcus pneumoniae (pneumococcus) to host cells is not well defined. We examined the effect of anti- ***PsaA*** antibodies in an inhibition of adherence assay using Detroit 562 nasopharyngeal human epithelial cells. Rabbit polyclonal (Pab) anti-recombinant ***PsaA*** (rPsaA) sera, a purified mouse monoclonal antibody (MAb) (MAb 6F62G8E12), and 22 healthy adult sera with known anti- ***PsaA*** IgG levels (obtained by enzyme-linked immunosorbent assay) were evaluated for their abilities to inhibit Pnc adherence to confluent monolayers (measured as percent reduction in CFU counts compared to those of uninhibited controls). Pnc adherence was dependent on capsular phenotype (no or low adherence for opaque strains). With an inoculum of 104 to 105 bacteria/well, the mean + standard deviation count in controls was 163 + 32 CFU/well for transparent strains. Low adherence was observed for a ***PsaA*** -minus mutant even at higher inoculum doses. Mean percent inhibitions of adherence with Pab and MAb were 54 and 50%, respectively. Adult sera showed inhibition in a dose-response fashion with a range of 98 to 8%, depending on the serum anti- ***PsaA*** antibody concentration. Absorption of Pab with rPsaA restored Pnc adherence to control levels.

Absorption of sera with a ***PsaA*** -minus mutant did not result in a significant decrease (P >0.05) of inhibition of adherence activity. Additionally, nearly 100% of Pnc adherence was inhibited by ***lipidated*** rPsaA at 2.5 mug/ml. Our data support the argument that ***PsaA*** is an adhesin that mediates Pnc adherence to human nasopharyngeal cells. This functional assay may be useful in evaluating antibodies elicited in response to ***PsaA*** vaccination.

TI Inhibition of pneumococcal adherence to human nasopharyngeal epithelial cells by anti- ***PsaA*** antibodies.

AB The role of pneumococcal (Pnc) surface adhesin A (***PsaA***) in the adherence of Streptococcus pneumoniae (pneumococcus) to host cells is not well defined. We examined the effect of anti- ***PsaA*** antibodies in an inhibition of adherence assay using Detroit 562 nasopharyngeal human epithelial cells. Rabbit polyclonal (Pab) anti-recombinant ***PsaA*** (rPsaA) sera, a purified mouse monoclonal antibody (MAb) (MAb 6F62G8E12), and 22 healthy adult sera with known anti- ***PsaA*** IgG levels (obtained by enzyme-linked immunosorbent assay) were evaluated for their abilities to inhibit Pnc adherence to confluent monolayers (measured. . . + standard deviation count in controls was 163 + 32 CFU/well for transparent strains. Low adherence was observed for a ***PsaA*** -minus mutant even at higher inoculum doses. Mean percent inhibitions of adherence with Pab and MAb were 54 and 50%, respectively. Adult sera showed inhibition in a dose-response fashion with a range of 98 to 8%, depending on the serum anti- ***PsaA*** antibody concentration. Absorption of Pab with rPsaA restored Pnc adherence to control levels. Absorption of sera with a ***PsaA*** -minus mutant did not result in a significant decrease (P >0.05) of inhibition of adherence activity. Additionally, nearly 100% of Pnc adherence was inhibited by ***lipidated*** rPsaA at 2.5 mug/ml. Our data support the argument that ***PsaA*** is an adhesin that mediates Pnc adherence to human nasopharyngeal cells. This functional assay may be useful in evaluating antibodies elicited in response to ***PsaA*** vaccination.

L5 ANSWER 12 OF 17 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN

DUPLICATE 2

AN 2003:181183 BIOSIS

DN PREV200300181183

TI Construction and evaluation of a plasmid vector for the expression of recombinant lipoproteins in Escherichia coli.

AU Cullen, Paul A.; Lo, Miranda; Bulach, Dieter M.; Cordwell, Stuart J.; Adler, Ben [Reprint Author]

CS Department of Microbiology, Bacterial Pathogenesis Research Group, Monash University, Clayton, VIC, 3800, Australia
Ben.Adler@med.monash.edu.au

SO Plasmid, (January 2003) Vol. 49, No. 1, pp. 18-29. print.
ISSN: 0147-619X (ISSN print).

DT Article

LA English
ED Entered STN: 9 Apr 2003
Last Updated on STN: 9 Apr 2003
AB Outer membrane lipoproteins are emerging as key targets for protective immunity to many bacterial pathogens. Heterologous expression of lipoproteins in Escherichia coli does not always result in high level expression of acylated recombinant protein. Thus, these proteins do not take up their correct membrane topology and are lacking the immunostimulatory properties endowed by the lipid. To this end, we have designed a lipoprotein expression vector (pDUMP) that results in the production of fusion proteins containing the E. coli major outer membrane lipoprotein (Lpp) signal sequence, lipoprotein signal peptidase recognition site, and the outer membrane sorting signal at their N termini. To test the ability of pDUMP to express lipoproteins from heterologous hosts, the surface lipoprotein ***PsaA*** from the Gram-positive organism Streptococcus pneumoniae and the outer membrane lipoproteins MlpA from the Gram-negative Pasteurella multocida and BlpA from the spirochete Brachyspira hyodysenteriae were cloned into both hexahistidine fusion vectors and pDUMP. High level expression of antigenically active protein from both the hexahistidine fusion vectors and pDUMP resulted in abundant bands of the predicted molecular masses when analyzed by SDS-PAGE. When grown in the presence of 3(H)palmitic acid, proteins encoded by pDUMP were observed to incorporate palmitic acid whilst the hexahistidine fusion proteins did not. Using mass spectrometry and image analysis we determined the efficiency of lipidation between the three clones to vary from 31.7 to 100%. In addition, ***lipidated*** , but not hexahistidine, forms of the proteins were presented on the E. coli surface.
AB. . . signal at their N termini. To test the ability of pDUMP to express lipoproteins from heterologous hosts, the surface lipoprotein ***PsaA*** from the Gram-positive organism Streptococcus pneumoniae and the outer membrane lipoproteins MlpA from the Gram-negative Pasteurella multocida and BlpA from. . . image analysis we determined the efficiency of lipidation between the three clones to vary from 31.7 to 100%. In addition, ***lipidated*** , but not hexahistidine, forms of the proteins were presented on the E. coli surface.
IT . . .
protective immunity target; outer membrane lipoprotein MlpA: antigen, protective immunity target; palmitic acid; plasmid pDUMP: lipoprotein expression vector; surface lipoprotein ***PsaA*** : antigen, protective immunity target

L5 ANSWER 13 OF 17 CAPLUS COPYRIGHT 2004 ACS on STN
AN 2002:51509 CAPLUS
DN 136:117369
TI Multiple antigenic peptides induce protective immune response against Streptococcus pneumoniae
IN Ades, Edwin W.; Johnson, Scott E.; Jue, Danny L.; Sampson, Jacquelyn S.;

Carlone, George M.
PA The Government of the United States of America, as Represented by the Secretary, Department of Health and Human Services, USA
SO PCT Int. Appl., 86 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2002004497	A2	20020117	WO 2001-US21626	20010710
WO 2002004497	A3	20010710		
AU 2001071935	A5	20020121	AU 2001-71935	20010710
EP 1301530	A2	20030416	EP 2001-950993	20010710
JP 2004502782	T2	20040129	JP 2002-509360	20010710
PRAI US 2000-613092	A2	20000710		
WO 2001-US21626	W	20010710		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR

AB The authors disclose the cloning and immunogenicity of the pneumococcal surface A protein (PspA) of S. pneumoniae challenge. In addn., the authors disclose epitope mapping for anti-PspA monoclonal antibodies obtained by panning of a phage display library. In one example, immunization of xid mice with PspA provided protective immunity against subsequent challenge. A in a second example, immunization of Balb/C mice with ***lipidated*** peptides or multiple antigenic peptide constructs were shown to inhibit bacterial colonization.
AB The authors disclose the cloning and immunogenicity of the pneumococcal surface A protein (PspA) of S. pneumoniae challenge. In addn., the authors disclose epitope mapping for anti-PspA monoclonal antibodies obtained by panning of a phage display library. In one example, immunization of xid mice with PspA provided protective immunity against subsequent challenge. A in a second example, immunization of Balb/C mice with ***lipidated*** peptides or multiple antigenic peptide constructs were shown to inhibit bacterial colonization.
ST Streptococcus ***PsaA*** protein multiple antigenic peptide vaccine
IT Streptococcus pneumoniae
(multiple antigenic peptide vaccines based on ***PsaA*** protein of)

IT Gene, microbial
RL: PRP (Properties)
(***psaA*** ; of Streptococcus pneumoniae)
IT Vaccines
(synthetic; multiple antigenic peptide vaccines based on ***PsaA*** protein of Streptococcus pneumoniae)
IT 390884-32-9
RL: BSU (Biological study, unclassified); PAC (Pharmacological activity); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(amino acid sequence; multiple antigenic peptide vaccines based on ***PsaA*** protein of Streptococcus pneumoniae)
IT 390884-33-0
RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)
(nucleotide sequence; multiple antigenic peptide vaccines based on ***PsaA*** protein of Streptococcus pneumoniae)

L5 ANSWER 14 OF 17 USPATFULL on STN
AN 2002:81034 USPATFULL
TI Vaccines
IN Garcon, Nathalie, Wavre, BELGIUM
Momin, Patricia Marie Christine Aline Francoise, Brussells, BELGIUM
PA SmithKline Beecham Biologicals, s.a., Rixensart, BELGIUM (non-U.S. corporation)
PI US 6372227 B1 20020416
US 2002058047 A1 20020516
WO 9912565 19990318
AI US 2000-486996 20000424 (9)
WO 1998-EP5714 19980902
20000424 PCT 371 date
PRAI GB 1997-18901 19970905
DT Utility
FS GRANTED
EXNAM Primary Examiner: Stucker, Jeffrey
LREP Kerekes, Zoltan, Venetianer, Stephen, Kinzig, Charles M.
CLMN Number of Claims: 25
ECL Exemplary Claim: 1
DRWN 15 Drawing Figure(s); 12 Drawing Page(s)
LN.CNT 1491
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention relates to oil in water emulsion compositions, their use in medicine, in particular to their use in augmenting immune responses to a wide range of antigens, and to methods of their manufacture; the compositions having oil phase and an aqueous phase, a sterol and a saponin; the sterol being present in the oil phase and the saponin being present in the aqueous phase.
DETD . . . thereof, transferrin-binding proteins, lactoferrin binding

proteins, PilC, adhesins); Streptococcus spp, including S. pneumoniae (for example capsular polysaccharides and conjugates thereof, ***PsaA*** , PspA, streptolysin, choline-binding proteins), S. pyogenes (for example M proteins or fragments thereof, C5A protease, lipoteichoic acids), S. agalactiae, S.. . .

DETD . . . and chimeric fusion proteins. In particular the antigen is OspA. The OspA may be a full mature protein in a ***lipidated*** form virtue of the host cell (E.Coli) termed (Lipo-OspA) or a non- ***lipidated*** derivative. Such non- ***lipidated*** derivatives include the non- ***lipidated*** NS1-OspA fusion protein which has the first 81 N-terminal amino acids of the non-structural protein (NS1) of the influenza virus, and the complete OspA protein, and another, MDP-OspA is a non- ***lipidated*** form of OspA carrying 3 additional N-terminal amino acids.

L5 ANSWER 15 OF 17 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
DUPLICATE 3
AN 2002:303982 BIOSIS
DN PREV200200303982
TI Inhibition of pneumococcal carriage in mice by subcutaneous immunization with peptides from the common surface protein pneumococcal surface adhesin A.
AU Johnson, Scott E. [Reprint author]; Dykes, Janet K.; Jue, Danny L.; Sampson, Jaquelyn S.; Carlone, George M.; Ades, Edwin W.
CS Division of Bacterial and Mycotic Diseases, Centers for Disease Control and Prevention, Respiratory Diseases Branch, National Center for Infectious Diseases, Atlanta, GA, 30333, USA
sjohnson@cdc.gov
SO Journal of Infectious Diseases, (15 February, 2002) Vol. 185, No. 4, pp. 489-496. print.
CODEN: JIDIAQ. ISSN: 0022-1899.
DT Article
LA English
ED Entered STN: 22 May 2002
Last Updated on STN: 22 May 2002
AB Pneumococcal surface adhesin A (***PsaA***), a common protein expressed on all 90 pneumococcal serotypes, is a vaccine candidate. Three anti- ***PsaA*** monoclonal antibody phage display-expressed monopeptides (15 mers), in various formulations as ***lipidated*** or nonlipidated multiantigenic peptides or as bi- or tripeptide constructs, were studied in a mouse nasopharyngeal carriage model to determine the inhibitory effect of induced antibodies on carriage of pneumococcal serotypes 2,4, and 6B. Antibodies to each of the various peptides tested reduced carriage of the 3 serotypes. Reduction in carriage by nonlipidated multiantigenic peptide antibodies was highly variable (39%-94%; mean, 59%; standard deviation (SD), 20.2%); however,

more-consistent results were observed in mice immunized with ***lipidated*** (56%-98%; mean, 69%; SD, 13.6%) and combination or bipeptide (55%-91%; mean, 76%; SD, 13.1%) formulations. These peptides are immunogenic, and their induced antibodies reduce carriage in mice. ***PsaA*** peptides demonstrate potential for being important new vaccines against pneumococcal carriage, otitis media, and invasive pneumococcal disease.

AB Pneumococcal surface adhesin A (***PsaA***), a common protein expressed on all 90 pneumococcal serotypes, is a vaccine candidate. Three anti- ***PsaA*** monoclonal antibody phage display-expressed monopeptides (15 mers), in various formulations as ***lipidated*** or nonlipidated multiantigenic peptides or as bi- or tripeptide constructs, were studied in a mouse nasopharyngeal carriage model to determine. . . antibodies was highly variable (39%-94%; mean, 59%; standard deviation (SD), 20.2%); however, more-consistent results were observed in mice immunized with ***lipidated*** (56%-98%; mean, 69%; SD, 13.6%) and combination or bipeptide (55%-91%; mean, 76%; SD, 13.1%) formulations. These peptides are immunogenic, and their induced antibodies reduce carriage in mice. ***PsaA*** peptides demonstrate potential for being important new vaccines against pneumococcal carriage, otitis media, and invasive pneumococcal disease.

L5 ANSWER 16 OF 17 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN

DUPLICATE 4

AN 2000:196444 BIOSIS

DN PREV200000196444

TI Selection of an immunogenic and protective epitope of the ***PsaA*** protein of Streptococcus pneumoniae using a phage display library.

AU Srivastava, N.; Zeiler, J. L.; Smithson, S. L.; Carlone, G. M.; Ades, E. W.; Sampson, J. S.; Johnson, S. E.; Kieber-Emmons, T.; Westerink, M.A.J. [Reprint author]

CS Department of Medicine, Medical College of Ohio, 3055 Arlington Avenue, Toledo, OH, 43614, USA

SO Hybridoma, (Feb., 2000) Vol. 19, No. 1, pp. 23-31. print.
CODEN: HYBRDY. ISSN: 0272-457X.

DT Article

LA English

ED Entered STN: 17 May 2000
Last Updated on STN: 4 Jan 2002

AB Streptococcus pneumoniae is an important pathogen that causes disease in young and elderly individuals. The currently available polysaccharide vaccines have limited efficacy in those age groups most susceptible to pneumococcal infections. This study focuses on mapping the epitopes of a surface protein of S. pneumoniae by biopanning a 15 mer phage display library using 5 different monoclonal antibodies (MAbs) against the Pneumoccal surface adhesin A (***PsaA***). ***PsaA*** is a component of the bacterial cell wall that is highly species specific and

is involved in bacterial adherence and virulence. Biopanning of the phage display library reveals three distinct epitopes on the ***PsaA*** protein. The sequence homology of these epitopes ranges from two to six amino acids when compared to the native ***PsaA*** protein type 2. Two of these epitopes have been evaluated for their immunogeneicity in mice. The peptide selected by the MAbs 8G12, 6F6, and 1B7 is referred to as the consensus peptide and is immunogenic in mice. Optimal anti- ***PsaA*** response is observed in mice immunized with 50 mug of the consensus peptide complexed to proteosomes in 1:1 ratio. The anti- ***PsaA*** response is significantly lower than the response to the ***PsaA*** native protein. The peptide selected by monoclonal antibody 4E9 in its ***lipidated*** form is significantly protective in mice challenged with S. pneumoniae serotype 2 when compared to mice immunized with the native protein. These results show that the selected epitopes of ***PsaA*** protein are immunogenic and protective in mice. These epitopes need to be evaluated further as alternatives to currently available vaccines.

TI Selection of an immunogenic and protective epitope of the ***PsaA*** protein of Streptococcus pneumoniae using a phage display library.

AB. . . by biopanning a 15 mer phage display library using 5 different monoclonal antibodies (MAbs) against the Pneumoccal surface adhesin A (***PsaA***). ***PsaA*** is a component of the bacterial cell wall that is highly species specific and is involved in bacterial adherence and virulence. Biopanning of the phage display library reveals three distinct epitopes on the ***PsaA*** protein. The sequence homology of these epitopes ranges from two to six amino acids when compared to the native ***PsaA*** protein type 2. Two of these epitopes have been evaluated for their immunogeneicity in mice. The peptide selected by the MAbs 8G12, 6F6, and 1B7 is referred to as the consensus peptide and is immunogenic in mice. Optimal anti- ***PsaA*** response is observed in mice immunized with 50 mug of the consensus peptide complexed to proteosomes in 1:1 ratio. The anti- ***PsaA*** response is significantly lower than the response to the ***PsaA*** native protein. The peptide selected by monoclonal antibody 4E9 in its ***lipidated*** form is significantly protective in mice challenged with S. pneumoniae serotype 2 when compared to mice immunized with the native protein. These results show that the selected epitopes of ***PsaA*** protein are immunogenic and protective in mice. These epitopes need to be evaluated further as alternatives to currently available vaccines.

IT . . .

pneumococcal infection: bacterial disease, respiratory system disease
Pneumococcal Infections (MeSH)

IT Chemicals & Biochemicals

monoclonal antibodies; pneumoccal surface adhesion A protein [***PsaA*** protein]: immunogenic epitope, protective epitope

L5 ANSWER 17 OF 17 CAPLUS COPYRIGHT 2004 ACS on STN

AN 1999:511257 CAPLUS

DN 131:154473

TI Streptococcus pneumoniae ***lipidated*** ***PsaA*** protein, a chimeric DNA molecule encoding it, its recombinant production, isolation and purification, and its use in a vaccine for the prevention and treatment of infection

IN Ades, Edwin W.; Carlone, George M.; De, Barun K.; Sampson, Jacquelyn S.; Huebner, Robert C.

PA Center for Disease Control and Prevention, USA

SO PCT Int. Appl., 40 pp.
CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 9940200	A1	19990812	WO 1999-US379	19990114
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2319404	AA	19990812	CA 1999-2319404	19990114
AU 9923131	A1	19990823	AU 1999-23131	19990114
EP 1053329	A1	20001122	EP 1999-903011	19990114
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
BR 9909097	A	20001205	BR 1999-9097	19990114
JP 2002505083	T2	20020219	JP 2000-530614	19990114

PRAI US 1998-17782 A 19980203
WO 1999-US379 W 19990114

AB The invention provides a chimeric DNA mol. contg. the first 52 amino acids of Borrelia burgdorferi gene ospA lipoprotein (including the signal peptide) fused to the mature form of Streptococcus pneumoniae gene ***psaA*** pneumococcal surface protein A (***PsaA*** , previously known as pneumococcal fimbrial protein A). The invention also provides an expression vector contg. the chimeric DNA mol., and the use of the vector for recombinant prodn. of ***lipidated*** ***PsaA*** proteins. The invention further provides purifn. methods used to obtain the recombinant ***PsaA*** proteins, and use of these proteins in immunol. compns. Also provided are vaccines comprising immunogenic ***lipidated*** ***PsaA*** proteins and methods of use of such vaccines in the prevention and treatment of S. pneumoniae infection. The sequence of the chimeric DNA mol. used in the recombinant prodn. of ***lipidated*** ***PsaA*** proteins was included in the invention.

RE.CNT 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD

ALL CITATIONS AVAILABLE IN THE RE FORMAT

TI Streptococcus pneumoniae ***lipidated*** ***PsaA*** protein, a chimeric DNA molecule encoding it, its recombinant production, isolation and purification, and its use in a vaccine for the prevention and treatment of infection

AB The invention provides a chimeric DNA mol. contg. the first 52 amino acids of Borrelia burgdorferi gene ospA lipoprotein (including the signal peptide) fused to the mature form of Streptococcus pneumoniae gene ***psaA*** pneumococcal surface protein A (***PsaA*** , previously known as pneumococcal fimbrial protein A). The invention also provides an expression vector contg. the chimeric DNA mol., and the use of the vector for recombinant prodn. of ***lipidated*** ***PsaA*** proteins. The invention further provides purifn. methods used to obtain the recombinant ***PsaA*** proteins, and use of these proteins in immunol. compns. Also provided are vaccines comprising immunogenic ***lipidated*** ***PsaA*** proteins and methods of use of such vaccines in the prevention and treatment of S. pneumoniae infection. The sequence of the chimeric DNA mol. used in the recombinant prodn. of ***lipidated*** ***PsaA*** proteins was included in the invention.

ST chimeric DNA mol Borrelia gene ospA Streptococcus ***psaA*** ; recombinant ***lipidated*** Streptococcus pneumococcal surface protein A PspA purifn; ***lipidated*** recombinant PspA Streptococcus immunization protection pneumococcal infection; vaccine protection pneumococcal infection Streptococcus ***lipidated*** recombinant PspA; sequence chimeric DNA mol Borrelia gene ospA Streptococcus ***psaA***

IT Fusion proteins (chimeric proteins)
RL: BPN (Biosynthetic preparation); BUU (Biological use, unclassified); PUR (Purification or recovery); BIOL (Biological study); PREP (Preparation); USES (Uses)
(OspA- ***PsaA*** ; chimeric DNA mol. composed of first 52 amino acids of Borrelia burgdorferi gene ospA lipoprotein fused to mature form of Streptococcus pneumoniae gene ***psaA*** protein, used for prodn. of recombinant ***lipidated*** ***PsaA*** proteins)

IT Proteins, specific or class
RL: BPN (Biosynthetic preparation); PRP (Properties); PUR (Purification or recovery); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(PspA (pneumococcal surface protein A), recombinant ***lipidated*** ; Streptococcus pneumoniae ***lipidated*** ***PsaA*** protein, a chimeric DNA mol. encoding it, its recombinant prodn., isolation and purifn., and its use in a vaccine for prevention and treatment of infection)

IT Escherichia coli
Immunization
Molecular cloning
Streptococcus pneumoniae
Vaccines
(Streptococcus pneumoniae ***lipidated*** ***PsaA*** protein, a

chimeric DNA mol. encoding it, its recombinant prodn., isolation and purifn., and its use in a vaccine for prevention and treatment of infection)

IT Immunostimulants
(adjuvants, such as alum; Streptococcus pneumoniae ***lipidated*** ***PsaA*** protein, a chimeric DNA mol. encoding it, its recombinant prodn., isolation and purifn., and its use in a vaccine for prevention and treatment of infection)

IT Infection
(bacterial; Streptococcus pneumoniae ***lipidated*** ***PsaA*** protein, a chimeric DNA mol. encoding it, its recombinant prodn., isolation and purifn., and its use in a vaccine for prevention and treatment of infection)

IT Signal peptides
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(chimeric DNA mol. composed of first 52 amino acids of Borrelia burgdorferi gene ospA lipoprotein (including signal peptide) fused to mature form of Streptococcus pneumoniae gene ***psaA*** protein)

IT Borrelia burgdorferi
(chimeric DNA mol. composed of first 52 amino acids of Borrelia burgdorferi gene ospA lipoprotein fused to mature form of Streptococcus pneumoniae gene ***psaA*** protein, used for prodn. of recombinant ***lipidated*** ***PsaA*** proteins)

IT Alums
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(chimeric DNA mol. composed of first 52 amino acids of Borrelia burgdorferi gene ospA lipoprotein fused to mature form of Streptococcus pneumoniae gene ***psaA*** protein, used for prodn. of recombinant ***lipidated*** ***PsaA*** proteins)

IT Gene, microbial
RL: BPN (Biosynthetic preparation); BUU (Biological use, unclassified); PRP (Properties); BIOL (Biological study); PREP (Preparation); USES (Uses)
(chimeric, ospA- ***psaA*** ; chimeric DNA mol. composed of first 52 amino acids of Borrelia burgdorferi gene ospA lipoprotein fused to mature form of Streptococcus pneumoniae gene ***psaA*** protein, used for prodn. of recombinant ***lipidated*** ***PsaA*** proteins)

IT Lipoproteins
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(gene ospA; chimeric DNA mol. composed of first 52 amino acids of Borrelia burgdorferi gene ospA lipoprotein fused to mature form of Streptococcus pneumoniae gene ***psaA*** protein, used for prodn. of recombinant ***lipidated*** ***PsaA*** proteins)

IT Chimeric gene
RL: BPN (Biosynthetic preparation); BUU (Biological use, unclassified);

PRP (Properties); BIOL (Biological study); PREP (Preparation); USES (Uses)
(microbial, ospA- ***psaA*** ; chimeric DNA mol. composed of first 52 amino acids of Borrelia burgdorferi gene ospA lipoprotein fused to mature form of Streptococcus pneumoniae gene ***psaA*** protein, used for prodn. of recombinant ***lipidated*** ***PsaA*** proteins)

IT Drug delivery systems
(nasal; Streptococcus pneumoniae ***lipidated*** ***PsaA*** protein, a chimeric DNA mol. encoding it, its recombinant prodn., isolation and purifn., and its use in a vaccine for prevention and treatment of infection)

IT Pharynx
(nasopharynx, protection against colonization of S. pneumoniae in nasopharynx; Streptococcus pneumoniae ***lipidated*** ***PsaA*** protein, its recombinant prodn., isolation and purifn., and its use in a vaccine for prevention and treatment of infection)

IT DNA sequences
(of chimeric DNA mol. composed of first 52 amino acids of Borrelia burgdorferi gene ospA lipoprotein fused to mature form of Streptococcus pneumoniae gene ***psaA*** protein, used for prodn. of recombinant ***lipidated*** ***PsaA*** proteins)

IT Purification
(of recombinant ***PsaA*** protein; Streptococcus pneumoniae ***lipidated*** ***PsaA*** protein, a chimeric DNA mol. encoding it, its recombinant prodn., isolation and purifn., and its use in a vaccine for prevention and treatment of infection)

IT Gene, microbial
RL: BUU (Biological use, unclassified); PRP (Properties); BIOL (Biological study); USES (Uses)
(ospA; chimeric DNA mol. composed of first 52 amino acids of Borrelia burgdorferi gene ospA lipoprotein fused to mature form of Streptococcus pneumoniae gene ***psaA*** protein, used for prodn. of recombinant ***lipidated*** ***PsaA*** proteins)

IT Plasmid vectors
(pOPsaA.1; Streptococcus pneumoniae ***lipidated*** ***PsaA*** protein, a chimeric DNA mol. encoding it, its recombinant prodn., isolation and purifn., and its use in a vaccine for prevention and treatment of infection)

IT Gene, microbial
RL: BUU (Biological use, unclassified); PRP (Properties); BIOL (Biological study); USES (Uses)
(***psaA*** ; chimeric DNA mol. composed of first 52 amino acids of Borrelia burgdorferi gene ospA lipoprotein fused to mature form of Streptococcus pneumoniae gene ***psaA*** protein, used for prodn. of recombinant ***lipidated*** ***PsaA*** proteins)

IT Centrifugation
Cytolysis
Ion exchange chromatography

Sonication
(used in purifn. of recombinant ***PsaA*** ; Streptococcus pneumoniae ***lipidated*** ***PsaA*** protein, a chimeric DNA mol. encoding it, its recombinant prodn., isolation and purifn., and its use in a vaccine for prevention and treatment of infection)

IT 237420-67-6P
RL: BPN (Biosynthetic preparation); BUU (Biological use, unclassified); PRP (Properties); BIOL (Biological study); PREP (Preparation); USES (Uses)
(nucleotide sequence; chimeric DNA mol. composed of first 52 amino acids of Borrelia burgdorferi gene ospA lipoprotein fused to mature form of Streptococcus pneumoniae gene ***psaA*** protein, used for prodn. of recombinant ***lipidated*** ***PsaA*** proteins)

IT 9036-19-5, TRITON X-114
RL: ARG (Analytical reagent use); BUU (Biological use, unclassified); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(used in lysis of E. coli cells contg. recombinant ***PsaA*** ; Streptococcus pneumoniae ***lipidated*** ***PsaA*** protein, its recombinant prodn., isolation and purifn., and its use in a vaccine for prevention and treatment of infection)

=> s (lipidat? PsaA)
L6 1 (LIPIDAT? PSAA)

=> d

L6 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1999:511257 CAPLUS
DN 131:154473
TI Streptococcus pneumoniae ***lipidated*** ***PsaA*** protein, a chimeric DNA molecule encoding it, its recombinant production, isolation and purification, and its use in a vaccine for the prevention and treatment of infection
IN Ades, Edwin W.; Carlone, George M.; De, Barun K.; Sampson, Jacquelyn S.; Huebner, Robert C.
PA Center for Disease Control and Prevention, USA
SO PCT Int. Appl., 40 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 9940200	A1	19990812	WO 1999-US379	19990114

W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR,

TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
CA 2319404 AA 19990812 CA 1999-2319404 19990114
AU 9923131 A1 19990823 AU 1999-23131 19990114
EP 1053329 A1 20001122 EP 1999-903011 19990114
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI
BR 9909097 A 20001205 BR 1999-9097 19990114
JP 2002505083 T2 20020219 JP 2000-530614 19990114
PRAI US 1998-17782 A 19980203
WO 1999-US379 W 19990114
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